

Donald Abelson  
Chief of the International Bureau  
Federal Communications Commission  
445 12th Street SW  
Washington, D.C. 20554

Dear Mr. Abelson:

The National Telecommunications and Information Administration on behalf of the Executive Branch Agencies, has approved the release of the attached Draft Executive Branch (NTIA) preliminary view considering federal agency inputs toward the development of U.S. Proposals for WRC-2003. This preliminary view is forwarded your consideration and review by the WRC-2003 Advisory Committee.

This preliminary view deals with WRC-2003 Agenda Item 1.5 (consideration of 5 GHz matters). Although the Executive Branch Agencies are committed to supporting the use of Wireless Access Systems (WAS), consideration must be given to the differences in sharing between allocated and non-allocated, non-protected WAS and the existing services at 5 GHz. Therefore, the attached proposal differs in two aspects from the proposal developed by the Commission via its WRC Advisory committee. We include, in the background, clarification to the text on the current U.S. usage of WAS at 5 GHz. We also include a change to the U.S. view to show our support for WAS if the ITU-R studies can determine the appropriate controls needed to ensure protection of existing services from single system and aggregate interference caused by WAS.

I suggest that a meeting between NTIA and the FCC, including the proponents of the Wireless Access Systems and federal radar & EESS users, be scheduled as soon as possible in order to resolve the differences with a goal of having a draft U.S. proposal in time for the Inter-American Telecommunications Commission (CITEL) Permanent Consultative Committee III (PCC III) meeting in Brazil July 15-19. I will have Jim Vorhies from my staff contact Alexander Roytblat to set up the meeting.

Sincerely,

*(Original Signed January 30, 2002)*  
William T. Hatch  
Associate Administrator  
Office of Spectrum Management

Enclosure

## **DRAFT UNITED STATES PRELIMINARY VIEWS ON WRC-03**

**WRC-2003 Agenda Item 1.5:** To consider, in accordance with Resolution 736 (WRC-2000), regulatory provisions and spectrum requirements for new and additional allocations to the mobile, fixed, Earth exploration-satellite and space research services, and to review the status of the radiolocation service in the frequency range 5 150-5 725 MHz with a view to upgrading it, taking into account the results of ITU-R studies

**ISSUE:** The technical feasibility of accommodating all of the requests for new and additional allocations for the mobile, fixed (Region 3), Earth exploration-satellite (EESS) and space research (SRS) services and also the upgrade of the radiolocation allocation in a limited amount of spectrum.

**BACKGROUND:** At WRC-2000 there were several proposals for items to be placed on the WRC-03 Agenda dealing with spectrum in the 5 GHz range. These items included new and additional allocations to the mobile (for Radio Local Area Networks (RLAN)), fixed (for Fixed Wireless Access (FWA) in Region 3), Earth exploration-satellite (active) and space research (active) services. Also, an upgrade of the radiolocation allocation in 5 350-5 650 MHz was proposed. These were combined into one agenda item, since the possible allocation to any one of these services would affect the potential allocation of one or more of the other services within this frequency range.

Technology has evolved to the point where wireless networks can be readily and inexpensively deployed to support the businessman or student that is in a campus environment. These devices are becoming widely used in some parts of the world, particularly in North America and Europe. The U.S. domestic allocation table allows for the use of RLAN and FWA devices on an unlicensed, non-protected, non-interference basis in the 5 150-5 350 and 5 725-5 825 MHz bands. These devices have power level and antenna gain restrictions on them to protect the existing allocated services and can neither claim protection from nor cause interference to the existing services in these bands. Thus, in the United States, an RLAN system meeting the power level and antenna gain restrictions must still remedy any interference that it causes. Studies have shown that the presence of unrestricted outdoor wireless access system transmitters can cause significant interference to spaceborne active sensors that operate in the EESS and SRS. In addition, the ITU-R has concluded that restrictions are also necessary to protect the MSS feederlinks in the 5 150-5 250 MHz band. Lastly, preliminary ITU-R studies of radiolocation sharing with FWA have shown that large separation distances or other mitigation techniques such as receiver standards or error-correction coding are required to prevent mutual interference.

Active microwave sensors on board spacecraft are an increasingly important tool for monitoring the Earth's environment and oceans through the determination of wave height and oceanic currents as well as for radar imaging of the Earth's surface. The need for an additional 110 MHz of spectrum adjacent to the current international allocation from 5 250 – 5 460 MHz is well documented within the ITU-R. The member space agencies of the Space Frequency Coordination Group (SFCG) have reviewed requirements for the various active sensor measurements, including TOPEX/POSEIDON and JASON. They have recognized the requirement for an extension of the existing allocated primary band (5 250 - 5 460 MHz) for enhanced vertical resolution for spaceborne altimeters and enhanced horizontal resolution for synthetic aperture radars (SARs). Studies and past operational experience has shown that operation in bands allocated to the radiolocation, radionavigation and aeronautical radionavigation services has proven to be feasible in the 5 460 – 5 570 MHz band.

WRC-97 first considered the possibility of an allocation upgrade for the radiolocation service in the 2.9-3.4 GHz and 5.35-5.65 GHz bands by placing this matter on the draft WRC-2001 Agenda. A need for 600 MHz of additional primary radiolocation spectrum for radiolocation systems has been determined. Changes in technology are driving the need for larger bandwidth in order to be able to pick smaller and less reflective radar targets out of background clutter. Experience and studies has shown that the radiolocation service can successfully share the band 5 350-5 650 MHz with radionavigation and EESS/SRS active systems. Studies of sharing between radiolocation and active space borne sensors carried out for CPM-97 by JWP 7-8R support such sharing.

**U.S. VIEW:** Based upon the long history of successful co-band operations and the JWP 7-8R studies, the United States supports the upgrade of the radiolocation service to primary at 5 350-5 650 MHz. By the same reasoning, the EESS extension in the 5 460-5 570 MHz band is also supported. The United States believes that Wireless Access Systems (including RLANs) can successfully operate without an allocation on a non-protected, non-interference basis in the bands 5 150-5 350 and 5 470-5 725 MHz. If ITU-R studies determine the appropriate controls needed to ensure protection of existing services from single system and aggregate interference, the United States could support a primary allocation recognizing that the protection of existing services must be ensured. The United States does not support an allocation for fixed service (FWA) in the 5 250-5 350 MHz band (Region 3) until testing shows mitigation techniques will protect existing services.

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